Title (en)

SYSTEMS AND METHODS FOR STORAGE DEVICE BLOCK-LEVEL FAILURE PREDICTION

Title (de)

SYSTEME UND VERFAHREN ZUR FEHLERVORHERSAGE VON SPEICHERVORRICHTUNGEN AUF BLOCKEBENE

Title (fr)

SYSTÈMES ET PROCÉDÉS DE PRÉDICTION DE DÉFAILLANCE AU NIVEAU DE BLOC DE DISPOSITIF DE STOCKAGE

Publication

EP 3862865 B1 20220622 (EN)

Application

EP 21154694 A 20210202

Priority

- US 202062971773 P 20200207
- US 202016843823 A 20200408

Abstract (en)

[origin: EP3862865A1] In a method for dynamic wear-levelling and load redirection in a solid-state drive (SSD) including one or more blocks, the method including: receiving, by a controller, a request to write data; calculating, by the controller, a vulnerability factor of the one or more blocks; selecting, by the controller, a target block from the one or more blocks to receive the request to write data; determining, by the controller, a status of the target block based on the vulnerability factor of the target block; writing, by the controller, the data to the target block based on the status of the target block; and updating, by the controller, a mapping table based on the data written to the target block.

IPC 8 full level

G06F 3/06 (2006.01); **G06F 12/02** (2006.01)

CPC (source: CN EP KR US)

G06F 3/0616 (2013.01 - EP KR US); **G06F 3/0619** (2013.01 - US); **G06F 3/064** (2013.01 - EP KR US); **G06F 3/0658** (2013.01 - KR US); **G06F 3/0679** (2013.01 - EP KR US); **G06F 3/0688** (2013.01 - EP); **G06F 12/0246** (2013.01 - CN EP KR US); **G06F 12/0292** (2013.01 - KR); **G11C 16/3495** (2013.01 - CN); G06F 2212/7204 (2013.01 - EP); G06F 2212/7207 (2013.01 - EP); G06F 2212/7211 (2013.01 - CN KR US)

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